

CLAIMS

We Claim:

1. A rivet capable of self-piercing a plurality of sheets of materials and becoming embedded in one of said sheets comprising: a head section; and a shank section formed integrally with said head section; wherein said head section includes an upwardly and outwardly curved side wall surface extending from said shank section to a point proximate an upper surface of said head section, and said shank section includes a recess in a lower end thereof, said lower end of said shank section having a peripheral cutting edge sufficient to penetrate said material.
2. A rivet according to claim 1 wherein said head section includes an upwardly and inwardly curved side wall surface extending from said point to the upper surface of said head section.
3. A rivet according to claim 1 wherein said head section is provided with an uninterrupted planar end surface.
4. A rivet according to claim 1 wherein said shank section is provided with a cylindrical exterior surface.
5. A rivet according to claim 4 wherein said head section is provided with an uninterrupted planar surface disposed perpendicularly relative to the axis of said cylindrical surface.

6. A rivet according to claim 1 wherein said recess extends into said head section.
7. A rivet according to claim 1 wherein said recess includes a cylindrical surface portion.
8. A rivet according to claim 1 wherein said recess includes a curved bottom surface.
9. A rivet according to claim 1 wherein the depth of said recess is less than a thickness of said sheets of material.
10. A rivet according to claim 1 wherein said rivet is capable of self-piercing at least two sheets of material and the depth of said recess is greater than a first of said sheets penetrated by said rivet.
11. A rivet according to claim 1 wherein said recess includes a conical surface.
12. A rivet according to claim 11 wherein an included angle of said conical surface is within the range of 25° and 120°.
13. A rivet according to claim 11 wherein said conical surface is slightly convex.
14. A rivet according to claim 1 wherein said shank section includes a cylindrical exterior surface and said recess includes a conical surface cooperating with said cylindrical surface to provide a circular cutting edge.

15. A rivet according to claim 1 wherein an outer end of said recess is provided with a beveled surface.
16. A rivet according to claim 15 wherein said beveled surface is annular.
17. A rivet according to claim 15 wherein said beveled surface is slightly convex.
18. A rivet according to claim 1 wherein said rivet is formed of a material harder than the material of said sheets penetrated by said rivet.
19. A rivet according to claim 1 wherein said rivet and said sheets are formed of metals.
20. A rivet according to claim 1 wherein said rivet and said sheets are formed of plastic materials.